

**REMARKS**

Applicants gratefully appreciate the courtesies extended by Examiner Armstrong during the telephone discussion of September 6, 2002, wherein the Examiner agreed to withdraw the finality of the Office Action of March 8, 2002, enter and consider this Amendment and *not* issue a Final Office Action in response to this Amendment.

Claims 1-22 are pending in the application. Claims 1-22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,995,930 to Hab-Umbach et al. ("Hab"). It is respectfully submitted that at the very minimum, Hab does not anticipate the invention of claims 1, 9 and 15. Hab does not disclose or suggest a method for re-scoring an N-best hypothesis generated by a speech recognition system, much less a method for rescoring that comprises generating a synthetic waveform for each of the N-best text sequences and comparing each of the synthetic waveforms to the original waveform to select one of the N-best hypotheses, as essentially claimed in claims 1, 9 and 15.

Hab merely discloses a speech recognition process that organizes a speech vocabulary in a tree structure, wherein each branch in the tree represents a phoneme (see, e.g., Col. 2, lines 4-21). Although Hab discloses a method for decoding a spoken utterance , Hab clearly does not disclose generating a synthetic waveform for each of N best decoding results and comparing the synthetic waveform of such decoding results to the original waveform (the spoken utterance) to rescore the decoding results. Indeed, it is respectfully submitted that Examiner's reliance on the "reference" and "test" signals disclosed by Hab as being synthetic waveforms that are compared

to the original waveform, is misplaced. Hab expressly discloses that the "test" signals comprise representations of spectral components of the digitized speech signal, which are essentially feature vectors, as is well-known and understood in the art. Further, it is clear to one of ordinary skill in the art that the "reference" signals stored in memory 116 are simply speech models that are used to decode the "test" signals (see, e.g., Col. 8, lines 21-30). Again, it is respectfully submitted that Hab does not even remotely disclose or suggest generating synthetic waveforms.

Accordingly, claims 1, 9 and 15 are patentably distinct and patentable over Hab at least for the above reasons.

Claims 2-8 depend from claim 1, claims 10-14 depend from claim 9 and claims 16-22 depend from claim 15. As such, these claims are patentably distinct and patentable over Hab for *at least* the reasons given above for their respective base claims 1, 9 and 15. The withdrawal of the rejections under 35 U.S.C. § 102(e) is respectfully requested.

Early and favorable consideration by the Examiner is respectfully urged.

Respectfully submitted,



Frank DeRosa  
Reg. No. 43,584  
Attorney for Applicant(s)

F. Chau & Associates, LLP  
1900 Hempstead TnPk.  
East Meadow, NY 11553  
TEL.: (516) 357-0091  
FAX: (516) 357-0092

**Marked-Up Version Illustrating Claim Amendments**

1. (Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for rescoring N-best hypotheses of [a decoded original waveform output from] an automatic speech recognition system, [the N-best hypotheses comprising N text sequences,] the method steps comprising:
  - generating a synthetic waveform for each of [the] N text sequences representing the N-best hypotheses output from a speech recognition system;
  - comparing each synthetic waveform with [the] an original waveform decoded by the speech recognition system to determine the synthetic waveform that is closest to the original waveform; and
  - selecting for output the text sequence corresponding to the synthetic waveform determined to be closest to the original waveform.

9. (Amended) A method for rescoreing N-best hypotheses of [a decoded original waveform output from] an automatic speech recognition system, [the N-best hypotheses comprising N text sequences,] the method comprising the steps of:

generating a synthetic waveform for each of [the] N text sequences representing the N-best hypotheses output from a speech recognition system;

comparing each synthetic waveform with [the] an original waveform decoded by the speech recognition system to determine the synthetic waveform that is closest to the original waveform; and

selecting for output the text sequence corresponding to the synthetic waveform determined to be closest to the original waveform.